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EXAMINER				
NGUYEN, ALLEN H				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/789,497

Applicant(s)

KUROHATA ET AL.

Examiner

ALLEN H. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-9 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

- This office action is responsive to the following communication:
Amendment filed on 05/22/2008.
- Claims 1-9 are currently pending in the application.

Response to Arguments

1. Applicant's arguments, see page 7, filed 05/22/2008, with respect to the Specification objection have been fully considered and are persuasive. The objection of the Specification has been withdrawn.
2. Applicant's arguments with respect to claims 1-9 have been fully considered but they are not persuasive.
3. With respect to applicant's argument that "that Nakatani et al. is not at all related to specifying different image printing conditions for different groups of pages within a single job and printing the different page groups of the single job according to corresponding image printing conditions in a single printing operation as according to the claimed present invention. And it is respectfully submitted that Nakatani et al does not disclose, teach or suggest the features of the controller of the present invention as recited in amended claim 1 whereby control is performed to form the pages of one (single) job into plural groups, and different image printing conditions for each of the plural groups within the one job are set, and printing of each of the plural groups within the one job is performed

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in accordance with the different respective image printing conditions. And it is also respectfully submitted that Nakatani et al cannot achieve the advantageous effect of the claimed present invention of allowing a user to efficiently set image printing conditions on a page/group basis and perform image printing (in a single printing operation) based on the different image printing conditions.

In reply: Regarding claim 1, Nakatani '854 does not explicitly show a controller for performing control to." (i) form originals constituted by a bundle of pages within one job into a plurality of groups in printing copied images from the originals constituted by the bundle of pages within the one job, (ii) make the setting device set different image printing conditions for each group within the one job, (iii) make the image reader read images on originals for each group when the read start button is pressed, (iv) make the storage store the original images as the one job, and (v) make the image printing device print copied images for each group in accordance with the different image printing conditions set for each group within the one job with respect to all the groups within the one job when the image printing start button is pressed.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Tamai '993. In particular, Tamai '993 teaches a controller (Controlling section 34, fig. 2) for performing control to." (i) form originals constituted by a bundle of pages (i.e., job linkage such as page basis; Col. 7, lines 50-65, figs. 8, 9b) within one job into a plurality of groups in printing copied images from the originals constituted by the bundle of pages (i.e., the objective

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data for the linkage may be processed on a page basis; Col. 3, lines 39-40, fig. 8) within the one job (i.e., a document composed of a plurality of chapters, and that other document data consisting of both the chapter number; Col. 5, lines 55-60, a document is considered as one job), (ii) make the setting device set different image printing conditions for each group within the one job (Input of post-processing mode S4023, col. 7, lines 60-65, figs. 7, 9c, 12b), (iii) make the image reader (Image reading apparatus 22, fig. 2) read images on originals for each group when the read start button is pressed (i.e., data for the separating sheets between the chapters of the document is read by the image reading apparatus 22 or alternatively transmitted from one of the PC's 3; Col. 7, lines 9-12), (iv) make the storage store the original images as the one job (i.e., a plurality of linkage management jobs each containing linkage data for linking a plurality of image jobs, each including image data, are stored in the mode information storing section 31 of the storing section 32; Col. 8, lines 20-25, fig. 2), and (v) make the image printing device (2, fig. 2) print copied images for each group in accordance with the different image printing conditions set for each group within the one job (i.e., the post-processing according to the defined post-processing mode is carried out; Col. 8, lines 25-35) with respect to all the groups within the one job when the image printing start button is pressed (i.e., the first and second image jobs undergo image formation according to the image formation modes of the first and second image formation mode management jobs, thereby being printed out from the image forming section 35 in a linked state according to the linkage data of the linkage management job; Col. 9, lines 12-20).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatani et al. (US 2004/0107854) in view of Tamai et al. (US 6,621,993).

Regarding claim 1, Nakatani '854 discloses an image printing apparatus comprising:

a setting device (The post-processing section 4, fig. 2) for setting an image printing condition (i.e., in the post-processing section 4, the transported output sheet is subjected to a post-process such as a stapling process, a punching process, and a sorting process; Page 8, paragraph [0108]);

an image reader (a light scanning unit 13, fig. 2) for reading original images of a plurality of pages on a page basis (i.e., the image forming device that functions as a page printer which prints an image read from a single document on a single output sheet; Page 8, paragraph [0107]);

a read start button (S3, fig. 1) which causes the image reader to start reading the original images (i.e., by pushing down the start key, the image reading section 3 begins an operation for reading the set document; Page 8,

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paragraph [0124]);

a storage device ((Main Memory for Storing Image Data/ Hard Disk 64, fig. 3)) for storing the original images read by the image reader (i.e., the image data that has been stored in the storage means after inputting the original image data; See page 4, paragraph [0055]);

an image printing device (Fig. 2) for printing copied images based on the original images stored in the storage device in accordance with the image printing condition set by the setting device (i.e., a plurality of selectable printing conditions, each of which allows original images of the required print sheets number to be printed on the output sheets; Page 4, paragraph [0043]);

an image printing start button which instructs the image printing device to start printing the copied images (i.e., the user sets and inputs a print copies number g into the copying machine, and instructs the copying machine to start the printing operation, such as copies number setting step; Page 14, paragraph [0203], fig. 13, S22);

Nakatani '854 does not explicitly show a controller for performing control to." (i) form originals constituted by a bundle of pages within one job into a plurality of groups in printing copied images from the originals constituted by the bundle of pages within the one job, (ii) make the setting device set different image printing conditions for each group within the one job, (iii) make the image reader read images on originals for each group when the read start button is pressed, (iv) make the storage store the original images as the one job, and (v) make the image printing device print copied images for each group in

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accordance with the different image printing conditions set for each group within the one job with respect to all the groups within the one job when the image printing start button is pressed.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Tamai '993. In particular, Tamai '993 teaches a controller (Controlling section 34, fig. 2) for performing control to." (i) form originals constituted by a bundle of pages (i.e., job linkage such as page basis; Col. 7, lines 50-65, figs. 8, 9b) within one job into a plurality of groups in printing copied images from the originals constituted by the bundle of pages (i.e., the objective data for the linkage may be processed on a page basis; Col. 3, lines 39-40, fig. 8) within the one job (i.e., a document composed of a plurality of chapters, and that other document data consisting of both the chapter number; Col. 5, lines 55-60), (ii) make the setting device set different image printing conditions for each group within the one job (Input of post-processing mode S4023, col. 7, lines 60-65, figs. 7, 9c, 12b), (iii) make the image reader (Image reading apparatus 22, fig. 2) read images on originals for each group when the read start button is pressed (i.e., data for the separating sheets between the chapters of the document is read by the image reading apparatus 22 or alternatively transmitted from one of the PC's 3; Col. 7, lines 9-12), (iv) make the storage store the original images as the one job (i.e., a plurality of linkage management jobs each containing linkage data for linking a plurality of image jobs, each including image data, are stored in the mode information storing section 31 of the storing section 32; Col. 8, lines 20-25, fig. 2), and (v) make the image printing device (2, fig. 2) print copied images for

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each group in accordance with the different image printing conditions set for each group within the one job (i.e., the post-processing according to the defined post-processing mode is carried out; Col. 8, lines 25-35) with respect to all the groups within the one job when the image printing start button is pressed (i.e., the first and second image jobs undergo image formation according to the image formation modes of the first and second image formation mode management jobs, thereby being printed out from the image forming section 35 in a linked state according to the linkage data of the linkage management job; Col. 9, lines 12-20).

In view of the above, having the system of Nakatani and then given the well-established teaching of Tamai, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Nakatani as taught by Tamai to include: a controller for performing control to." (i) form originals constituted by a bundle of pages within one job into a plurality of groups in printing copied images from the originals constituted by the bundle of pages within the one job, (ii) make the setting device set different image printing conditions for each group within the one job, (iii) make the image reader read images on originals for each group when the read start button is pressed, (iv) make the storage store the original images as the one job, and (v) make the image printing device print copied images for each group in accordance with the different image printing conditions set for each group within the one job with respect to all the groups within the one job when the image printing start button is pressed, since Tamai stated in col. 1, lines 60-65 that such

a modification would ensure an image processing system, and an image-job linking method capable of easily preparing a linked document composed of different types of images and printing sheets without tedious work.

Regarding claim 2, Nakatani '854 discloses an apparatus (fig. 2), wherein the image printing condition includes a number of sheets on which the copied images are to be printed (i.e., a number of sheets that the image forming device can print by a single printing operation; Page 12, paragraph [0177]).

Regarding claim 3, Nakatani '854 discloses an apparatus (Fig. 2), wherein the image printing condition includes paper delivery position information to be set when recording sheets on which the copied images are printed are to be delivered (i.e., an amount of the output sheets that can be delivered by delivery means delivering the output sheet that have been printed; Page 5, paragraph [0058]).

Regarding claim 4, Nakatani '854 does not explicitly show an apparatus, wherein the image printing condition includes delimiter information indicating an end of a same image printing condition.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Tamai '993. In particular, Tamai '993 teaches an apparatus (2, fig. 2), wherein the image printing condition (Input of post-processing mode S4023/Post-processing mode 41, figs. 7, 9c) includes delimiter information

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indicating an end of a same image printing condition (i.e., page 64-last page of image job 1 for selecting a post-process mode; Col. 7, lines 60-65, figs. 9b-9c).

Regarding claim 5, Nakatani '854 discloses an apparatus (Fig. 2), wherein the controller (Central Processing Unit 65, fig. 3) causes a postprocessing device (post-processing section (post-processing means) 4, fig. 4) to perform processing on a booklet basis based on the delimiter information (i.e., a manual reading mode in which a book-shaped document or a sheet-shaped document which cannot be automatically supplied by the automatic document transport device 31 is manually set so that a document image is read; Page 7, paragraph [0107], fig. 14, a flow chart showing a procedure of the printing condition setting booklet basis).

Regarding claim 8, Nakatani '854 does not explicitly show an apparatus, wherein said setting device comprises a selecting device for selecting whether to perform control based on the delimiter information.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Tamai '993. In particular, Tamai '993 teaches an apparatus (2, fig. 2), wherein said setting device comprises a selecting device (Data-processing procedure input wizard 41, fig. 9c) for selecting whether to perform control based on the delimiter information (i.e., select post-processing mode P5, fig. 9c).

Regarding claim 9, Nakatani '854 discloses an apparatus (Fig. 2), wherein the controller (Central Processing Unit 65, fig. 3) performs the image printing without stopping a print sequence on the page basis (i.e., an automatic reading mode in which sheet-shaped documents are automatically supplied by an automatic document transport device 31 and each document is sequentially subjected to exposure scanning so that a document image is read; Page 7, paragraph [0104]) when the image printing conditions are input on the page basis (i.e., a case of printing documents having a plurality of pages on output sheets; See Abstract).

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatani et al. (US 2004/0107854) in view of Tamai et al. (US 6,621,993), and further in view of Tamura (US 2003/0016391).

Regarding claim 6, the combination of Nakatani '854 and Tamai '993 does not explicitly show an apparatus, wherein the delimiter information indicates a last page in one loading operation when the original images of the plurality of pages are to be loaded by repeating the loading operation.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Tamura '391. In particular, Tamura '391 teaches an apparatus (A printer apparatus 100, fig. 3), wherein the delimiter information (Rotating Condition Set In S62 or S63 is Met, fig. 17, S64) indicates a last page (i.e., when printing-out processing of the last page has been finished (Yes in a

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step S15); page 12, paragraph [0172], fig. 17) in one loading operation when the original images of the plurality of pages are to be loaded by repeating the loading operation (i.e., printing-out processing for the subsequent copy is started, and the mentioned series of processing (S11, S64, S15) is repeated; Page 12, paragraph [0172], fig. 17).

In view of the above, having the system of Nakatani and Tamai and then given the well-established teaching of Tamura, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Nakatani and Tamai as taught by Tamura to include: an apparatus, wherein the delimiter information indicates a last page in one loading operation when the original images of the plurality of pages are to be loaded by repeating the loading operation, since Tamura stated on page 1, paragraph [0005] that such a modification would ensure an image forming apparatus can perform various functions such as: a continuous copying function of repeatedly reading the same image data and copying a plurality of sheets of the same image continuously.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatani et al. (US 2004/0107854) in view of Tamai et al. (US 6,621,993), and further in view of Ohkubo et al. (US 2002/0051207).

Regarding claim 7, the combination of Nakatani '854 and Tamai '993 does not explicitly show an apparatus, wherein the read start button and the image printing start button are formed by a single member.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Ohkubo '207. In particular, Ohkubo '207 teaches an apparatus (image printing system, fig. 1), wherein the read start button (i.e., the message "please set the manuscript on the scanner and press the reading start" is shown laterally in the uppermost row, and the "reading start" button is provided in the lowermost row together; Page 16, paragraph [0242]) and the image printing start button (i.e., the message "please remove the smart medium and press the printing start" is shown laterally, and the "printing start" button is provided in the lowermost row; Page 16, paragraph [0249]) are formed by a single member.

In view of the above, having the system of Nakatani and then given the well-established teaching of Ohkubo, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Nakatani as taught by Ohkubo to include: an apparatus, wherein the read start button and the image printing start button are formed by a single member, since Ohkubo stated on page 1, paragraph [0009] that such a modification would ensure a development of the image printing system which can offer a more additional value to the printed article would be desired.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Higashikawa et al. (US 5,881,337) discloses sheet aligning apparatus and processing apparatus used for copying machine.

Telle (US 5,808,747) discloses apparatus and method for production of signatures.

Ogura (US 4,860,115) discloses digital copier with a facsimile function.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALLEN H. NGUYEN whose telephone

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number is (571)270-1229. The examiner can normally be reached on M-F from 9:00 AM-6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on (571)-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/
Supervisory Patent Examiner, Art Unit 2625

/Allen H Nguyen/
Examiner, Art Unit 2625